

In the claims:

Please substitute the following full listing of claims for the claims as originally filed or most recently amended.

1. (Original) A method of protecting a material surface comprising steps of

depositing a material layer on said material surface, said material layer providing an interface selected from the group consisting of a chemical reaction interface, a grain interface and a material interface,

lithographically patterning said material layer, and removing said material layer from said material surface selectively to said material surface.

2. (Original) A method as recited in claim 1, wherein said material layer provides a chemical reaction interface and is formed of a low density and high permeability material relative to other semiconductor materials and wherein said depositing step includes

converting said material layer using a plasma containing hydrogen and oxygen or water vapor.

3. (Original) A method as recited in claim 2, wherein said removing step includes

etching said material layer with a mixture of hydrogen fluoride and a hygroscopic material at a chemical reaction interface.

4. (Original) A method as recited in claim 3, wherein said low density and high permeability material is a tunable etch-resistant anti-reflective coating (TERA) material.

5. (Original) A method as recited in claim 3, wherein said hygroscopic material is an organic solvent or an inorganic acid.

6. (Original) A method as recited in claim 5, wherein said organic solvent is ethylene glycol.

7. (Original) A method as recited in claim 5, wherein said inorganic acid is sulfuric acid.

8. (Currently Amended) A method as recited in claim 1, wherein said depositing step includes

depositing a first layer of polysilicon material,  
exposing said first layer of polysilicon material to  
an ambient gas to form a said grain interface, and  
depositing a second layer of ~~polysilicon~~ polysilicon  
material.

9. (Original) A method as recited in claim 8, wherein said ambient gas includes oxygen.

10. (Original) A method as recited in claim 9, wherein said first and second layers of polysilicon material have a total thickness of less than 40 nm.

11. (Original) A method as recited in claim 1, wherein said depositing step includes

depositing a layer of polysilicon, and  
depositing a layer of metal in said layer of  
polysilicon to form a said material interface.

12. (Original) A method as recited in claim 10, wherein said metal is tungsten.

13. (Original) A method as recited in claim 11, including the further step of

forming a silicide from said layer of metal and said layer of polysilicon.

14. (Original) A method as recited in claim 11, including the further step of patterning said layers of metal and polysilicon to form integrated circuit element structures.

15. (Original) A mask structure for semiconductor device manufacture comprising

a layer of material providing an interface selected from the group consisting of a chemical reaction interface, a grain interface and a material interface,

wherein said interface provides at least one of increased resistance to semiconductor manufacturing processes and enhanced selectivity of an etching process for removal of said layer of material.

16. (Original) A mask structure as recited in claim 15, wherein said layer of material has OH<sup>-</sup> groups or water incorporated therein.

17. (Currently Amended) A mask structure as recited in claim 16, wherein said layer of material is a tunable, etch-resistant anti-reflective coating ~~material~~ material.

18. (Original) A mask structure as recited in claim 16, wherein said layer of material comprises two layers of polysilicon having a grain interface therebetween such that grain boundaries in each layer are interrupted by said grain interface.

19. (Original) A mask structure as recited in claim 18, wherein said grain interface is formed of an oxide.

20. (Original) A mask structure as recited in claim 15, wherein said layer of material comprises a layer of polysilicon and a layer of metal.

21. (Original) A mask structure as recited in claim 20 wherein said metal is tungsten.

22. (Original) A mask structure as recited in claim 20, wherein said layer of material is patterned to form a conductive structure in said semiconductor device.

23. (Original) A mask structure as recited in claim 22, wherein said conductive structure is a transistor gate.

24. (Original) A mask structure as recited in claim 15, wherein said layer of material includes materials selected from the group consisting of tunable etch-resistant anti-reflective coating (TERA) material, TERA material and polysilicon or nitride, a metal and polysilicon, oxidized polysilicon, nitridized polysilicon and silicided metal.